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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,540

08/26/2003

Milind R. Naphade

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MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

LIEW, ALEX KOK SOON

ART UNIT

PAPER NUMBER

2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/647,540	NAPHADE ET AL.	
	Examiner	Art Unit	
	Alex Liew	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hanna (US pat no 6,714,665).

With regards to claim 1, Hanna discloses a descriptor propagation system comprising

a descriptor acceptance device that accepts a first descriptor associated with a first content granularity (see fig 6 – the system takes an image of the person when system detect an ATM card is inserted into the ATM machine slot, then the image taken is labeled as an image of a person, which is read as the first descriptor and at image level it is read as the first granularity as discussed in col. 16 lines 26 – 33) and

a descriptor generator device that generates a second descriptor associated with a second content granularity based on the first descriptor, wherein the second content granularity is finer than the first content granularity (see fig 6 – 612 –image region level, which is read as the second content granularity and 612 is labeled as the head of the person, which is read as second descriptor).

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With regards to claim 2, Hanna discloses a system of claim 1, further comprising a descriptor propagation device generates a propagation function based upon the first descriptor and the first content granularity, wherein the descriptor generator device generates the second descriptor based upon the propagation function and first descriptor (see col. 16 lines 46 – 62 – the distance function is read as the propagation function, the distance function determines the brightness of pixels to determine whether the current pixel belong to the head region or not in the head region, based on the result of the distance function the system will decide to whether classify the current pixel as a head pixel or not a head pixel).

With regards to claim 3, Hanna discloses a system of claim 1, further comprising a repository that stores the first descriptor associated with the first content granularity (see fig 1 – 20 – the computer stores data, descriptors, such as 'person,' 'head,' 'eyes,' etc).

With regards to claim 4, see the rationale and rejection for claims 1 and 2. In addition, the distance function shown in column 16 lines 46 – 61 of Hanna is read as the mapping function.

With regards to claim 5, Hanna discloses a system of claim 4, wherein the second descriptor is different than the first descriptor and is stored in the information repository

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(see fig 6 – the first descriptor is the person as a whole and the second descriptor is the person's head).

With regards to claim 6, Hanna discloses a system of claim 4, further comprising a descriptor mapping device that generates another mapping function based upon the first descriptor and the first content granularity and the stores the second mapping function in the information repository (see col. 16 lines 42 – 67 – the distance function is computed for each pixel in the image in fig 6, so there are x distance functions being computed in the process, where x is the number pixels in the image).

With regards to claim 7, see the rationale and rejection for claim 3.

With regards to claim 8, see the rationale and rejection for claim 1.

With regards to claim 9, Hanna discloses a system of claim 8, further comprising a descriptor classification device that generates a classification function based upon the first content (see fig 6 – the image in image 6 is an image of a person at image level, first granularity content, the descriptor is the 'person'), wherein the descriptor generator device generates the output content based upon the classification function and second content at the first content granularity (see col. 16 lines 46 – 62 – the second content / second descriptor is generated from using the content in the image of fig 6, which is at image level).

With regards to claim 10, Hanna discloses a method for propagating descriptors comprising analyzing a first content at first content granularity to determine a propagation function that correlates a first descriptor provided for the first content to a second content granularity that is finer than the first content granularity (see fig 6 – the first descriptor is the image of the person at image level and the second content granularity is the regions within the image 612 and 614) and outputting the first descriptor at the second content granularity (see fig 6 – the person's face and / or hands are also part of the first content granularity, the person's face is read as the first descriptor).

With regards to claim 11, Hanna discloses a method of claim 10, wherein analyzing the first content to determine the propagation function comprises extracting features from the first content (see col. 16 lines 46 – 62 – distance function is used to extract the face of the person in the image).

With regards to claim 12, Hanna discloses a method for mapping descriptors comprising mapping a first descriptor at a first content granularity to a second content granularity that is finer than the first content granularity based upon a mapping function (see fig 6 – the first descriptor is the image of the person at image level and the second content granularity is the regions within the image 612 and 614) and outputting the first descriptor at the second content granularity (see fig 6 – the person's face and / or hands

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are also part of the first content granularity, the person's face is read as the first descriptor).

With regards to claim 13, Hanna discloses a method of claim 12, wherein the mapping function is stored in an information repository (see fig 1 – 20 – the computer stores data, descriptors, such as 'person,' 'head,' 'eyes,' etc).

With regards to claim 14, Hanna discloses a method of claim 12, wherein the second descriptor is different than the first descriptor and is stored in an information repository (see fig 6 – the first descriptor is the whole 'person' image and second descriptor is the person's face).

With regards to claim 15, Hanna discloses a method of claim 12, further comprising analyzing the first descriptor to generate another mapping function (see col. 16 lines 426 – 62 – the distance function is computed for every pixel in the image to find the second content granularity).

With regards to claim 16, Hanna discloses a method for classifying descriptors comprising

generating a classification function based upon a first descriptor for a first content at a first content granularity (see fig 7 – the function needed to distinguish between eyes and the skin such as cheek and forehead are done through use of brightness level of

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the pixels examined within region 612, 612 is read as the first content granularity and its corresponding descriptor is 'face'),

accepting a second content that does not include a descriptor (see col. 17 lines 2 – 8 – those smaller areas 710, 712, 714 and 716 are potential cheek, forehead or eyes, but there are no descriptors assign to them at the current stage) and

providing the first descriptor to the second content at a second content granularity that is finer than the first content granularity based upon the classification function (see fig 7 – at later stage the eyes are located through using the dark or brightness function, col. 17 lines 21 – 23 – the eyes are read as first descriptors).

With regards to claim 18 and 22, see the rationale and rejection for claim 12. In addition, the computer, fig 1 – 20, contains programs embedded in storage medium of the computer to run the methods described by Hanna.

With regards to claim 19, see the rationale and rejection for claim 14.

With regards to claim 21, see the rationale and rejection for claim 10. In addition, the computer, fig 1 – 20, contains programs embedded in storage medium of the computer to run the methods described by Hanna.

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With regards to claims 17, 20 and 23, see the rationale and rejection for claim 16. In addition, the computer, fig 1 – 20, contains programs embedded in storage medium of the computer to run the methods described by Hanna.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623.

The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Alex Liew

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1/26/07

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER